

**AMENDMENTS****In the Claims:**

Please amend the claims as follows. Clean copies of the amended claims follow, and a marked up version showing the changes to the claims is attached at the end of this amendment.

Please amend the claims to read as follows:

29. (Amended) A method of producing L- $\beta$ -lysine, comprising:

(a) culturing a prokaryotic host cell comprising an expression vector that encodes lysine 2,3-aminomutase in the presence of L-lysine, wherein the cultured host cell expresses lysine 2,3-aminomutase, and

(b) isolating L- $\beta$ -lysine from the cultured host cells.

31. (Amended) The method of claim 30, wherein the lysine 2,3-aminomutase has an amino acid sequence selected from the group consisting of (i) SEQ ID NO: 4, and (ii) a conservative amino acid variant of SEQ ID NO: 4.

36. (Amended) The method of claim 29 wherein the vector that encodes lysine 2,3-aminomutase has a nucleic acid sequence of SEQ ID NO: 3.

41. (Amended) The method of claim 40 wherein the L-lysine is contacted with the immobilized lysine 2,3-aminomutase for a sufficient amount of time to produce enantiomerically pure L- $\beta$ -lysine.

46. (Amended) The method of claim 37, wherein the lysine 2,3-aminomutase has an amino acid sequence selected from the group consisting of (i) SEQ ID NO: 4, and (ii) a conservative amino acid variant of SEQ ID NO: 4.